Florida Power & Light Company, 6501 S. Ocean Drive, Jensen Beach, FL 34957

April 15, 2005

L-2005-072
10 CFR 50.4
10 CFR 50.54 (f)

U. S. Nuclear Regulatory Commission
Attn: Document Control Desk
Washington, DC 20555

Re: St. Lucie Unit 2
Docket No. 50-389
NRC Bulletin 2004-01
Post Refueling Outage (SL2-15) Response

On May 28, 2004, the Nuclear Regulatory Commission issued NRC Bulletin (NRCB) 2004-01, Inspection of Alloy 82/182/600 Materials Used in the Fabrication of Pressurizer Penetrations and Steam Space Piping Connections at Pressurized Water Reactors. The Florida Power & Light Company (FPL) responses, L-2004-160 dated July 27, 2004, as supplemented by the request for additional information responses, L-2005-011 dated January 18, 2005 provided the FPL plans for the requested inspections. Pursuant to NRCB Request 2(a), the attached report provides the results of the pressurizer inspections performed during the St. Lucie Unit 2 January 2005 refueling outage (SL2-15).

Please contact George Madden at 772-467-7155 if there are any questions about this submittal.

Very truly yours,

William Jefferson, Jr.
Vice President
St. Lucie Plant

WJ/GRM

Attachment

A110

NRC Bulletin 2004-01
Inspection of Alloy 82/182/600 Materials Used in the Fabrication of PWR Pressurizer Penetrations and Steam Space Piping Connections
Post Refueling Outage (SL2-15) Response for St. Lucie Unit 2

On May 28, 2004, the Nuclear Regulatory Commission (NRC) issued Bulletin 2004-01, Inspection of Alloy 82/182/600 Materials Used in the Fabrication of Pressurizer Penetrations and Steam Space Piping Connections at Pressurized Water Reactors. The NRC bulletin requested that Florida Power & Light Company (FPL) provide a statement that the inspections identified in the St. Lucie Unit 2 response, L-2004-160,[1] as supplemented by the request for additional information response, L-2005-011,[2] were completed and the as-found condition of the inspected components within 60 days of plant restart. St. Lucie Unit 2 returned to operation on February 15, 2005. FPL hereby submits the inspection results response for the St. Lucie Unit 2 January 2005 refueling outage (SL2-15).

NRC Request Item 2. *Within 60 days of plant restart following the next inspection of the Alloy 82/182/600 pressurizer penetrations and steam space piping connections, the subject PWR licensees should either:*

(a) submit to the NRC a statement indicating that the inspections described in the licensee's response to item (1)(c) of this bulletin were completed and a description of the as-found condition of the pressurizer shell, any findings of relevant indications of through-wall leakage, followup NDE performed to characterize flaws in leaking penetrations or steam space piping connections, a summary of all relevant indications found by NDE, a summary of the disposition of any findings of boric acid, and any corrective actions taken and/or repairs made as a result of the indications found, or

(b) if the licensee was unable to complete the inspections described in response to item (1)(c) of this bulletin, submit to the NRC a summary of the inspections performed, the extent of the inspections, the methods used, a description of the as-found condition of the pressurizer shell, any findings of relevant indications of through-wall leakage, followup NDE performed to characterize flaws in leaking penetrations or steam space piping connections, a summary of all relevant indications found by NDE, a summary of the disposition of any findings of boric acid, and any corrective actions taken and/or repairs made as a result of the indications found. In addition, supplement the answer which you provided to item (1)(d) above to explain why the inspections that you completed were adequate for the purpose of maintaining the integrity of your facility's RCPB and for meeting all applicable regulatory requirements which pertain to your facility.

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1 FPL Letter L-2004-160, Florida Power & Light Company, St. Lucie Units 1 and 2, Turkey Point Units 3 and 4, and FPL Energy Seabrook, LLC, Seabrook Station, Responses to NRC Bulletin 2004-01, from J.A. Stall to NRC, dated July 27, 2004.

2 FPL Letter L-2005-011, Florida Power & Light Company, St. Lucie Units 1 and 2 and FPL Energy Seabrook, LLC, Seabrook Station, Response to NRC Bulletin 2004-01 Request for Additional Information, from J.A. Stall to NRC, dated January 18, 2005.

St. Lucie Response to NRC Request 2a:

FPL completed the bare metal visual inspection of all the St. Lucie Unit 2 Alloy 600/82/182 pressurizer penetrations and steam space piping connections identified in the FPL response to request item 1(c) of Bulletin 2004-01. The scope of these bare metal visual inspections included the 30 pressurizer heater sleeves, 1 pressurizer water space instrument nozzle with Alloy 82/182 material, and butt welds associated with the spray nozzle (1), relief nozzle (1), safety nozzles (3), and surge nozzle (1).

There were no indications of leakage identified from any of these locations.

The St. Lucie Unit 2 pressurizer materials in Table 2 from the FPL Bulletin 2004-01 response L-2004-160 are repeated in the following table.

Table 2: St. Lucie Unit 2 Pressurizer Penetration and Steam Space Piping Materials and Design Details

Pressurizer Penetration/Piping Component	Qty	Material Type	Weld Joint Design	Size (Inches)
Spray Nozzle Assembly Consisting of:	1			3.438" ID
Spray Nozzle (Integral) Clad Lined	1	Carbon/Alloy Steel	Material	
Spray Nozzle Weld End Prep Buildup (butter)	1	Alloy 182 Weld	Buttering Weld	
Spray Nozzle End Prep to Safe End Weld	1	Alloy 182 Weld	Full Pen Butt Joint	
Spray Nozzle Safe End/Pipe	1	Stainless Steel	Material	
Spray Nozzle Safe End to spray pipe Weld	1	Stainless Steel	Full Pen Butt Joint	
Relief Nozzle Assembly Consisting of:	1			3.438" ID
Relief Nozzle (Integral) Clad Lined	1	Carbon/Alloy Steel	Material	
Relief Nozzle Weld End Prep Buildup (butter)	1	Alloy 182 Weld	Buttering Weld	
Relief Nozzle End Prep to Safe End Weld	1	Alloy 182 Weld	Full Pen Butt Joint	
Relief Nozzle Safe End/Pipe	1	Stainless Steel	Material	
Relief Nozzle Safe End to Relief Pipe Weld	1	Stainless Steel	Full Pen Butt Joint	
Relief Pipe	1	Stainless Steel	Material	
Safety Nozzle Assembly Consisting of:	3			2.938" ID
Safety Valve Nozzle (Integral) Clad Lined	3	Carbon/Alloy Steel	Material	
Safety Valve Nozzle Weld End Prep Buildup (butter)	3	Alloy 182 Weld	Buttering Weld	
Safety Valve Nozzle End Prep to Flange Weld	3	Alloy 182 Weld	Full Pen Butt Joint	
Safety Valve Nozzle Flange	3	Stainless Steel	Material	
Surge Nozzle Assembly Consisting of:	1			9.75" ID
Surge Nozzle (Integral) Clad Lined	1	Carbon/Alloy Steel	Material	
Surge Nozzle Weld End Prep Buildup (butter)	1	Alloy 182 Weld	Buttering Weld	
Surge Nozzle End Prep to Safe End Weld	1	Alloy 182 Weld	Full Pen Butt Joint	
Surge Nozzle Safe End/Pipe	1	Stainless Steel	Material	
Surge Nozzle Safe End to Surge Pipe Weld	1	Stainless Steel	Full Pen Butt Joint	
Steam Space Instrument Nozzles Consisting of:	4			0.815" ID
Instrument Nozzles	4	Alloy 690	Material	
Instrument Nozzle to Safe End Weld	4	Alloy 52 (690)	Full Pen Butt Joint	
Instrument Nozzle Safe End	4	Stainless Steel	Material	
Instrument Nozzle to Vessel Weld	4	Alloy 52 (690)	Ext. Pad Weld & Part Pen J-Groove	
Instrument Nozzle to Piping Weld	4	Stainless Steel	Socket Weld	
Instrument Nozzle Piping	4	Stainless Steel	Material	
Water Space Level & Temp. Instrument Nozzles Consisting of:	3			0.815" ID
Instrument Nozzles	3	Alloy 690	Material	
Instrument Nozzle to Safe End Weld	3	Alloy 52 (690)	Full Pen Butt Joint	
Instrument Nozzle Safe End	3	Stainless Steel	Material	
Instrument Nozzle to Vessel Weld (See Note below)	3	Alloy 52 (690)	Ext. Pad Weld & Part Pen J-Groove	
Instrument Nozzle to Piping Weld	2	Stainless Steel	Socket Weld	
Instrument Nozzle to Thermocouple Weld	1	Stainless Steel	Socket Weld	
Instrument Nozzle Piping	2	Stainless Steel	Material	
Instrument Nozzle Connected Thermocouple	1	Stainless Steel	Material	
Heater Sleeve	30	Alloy 600	Material	1.273" ID
Heater Sleeve to Pressurizer Vessel (buttered Vessel Prep)	30	Alloy 182 Weld	Internal Part Pen J-Groove	

Note: One instrument nozzle pad to vessel weld is alloy 82.